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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/049,632

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Kolja Vogel

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ALEXANDRIA, VA 22314-1176

EXAMINER

HOFFMAN, BRANDON S

ART UNIT

PAPER NUMBER

2136

MAIL DATE

DELIVERY MODE

08/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/049,632	Applicant(s) VOGEL ET AL.	
	Examiner BRANDON S. HOFFMAN	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-26 are pending in this office action.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 14, 2008, has been entered.

3. Applicant's arguments, filed April 14, 2008, are moot in view of the new ground of rejection.

Claim Rejections

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 5-7, and 10-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Pearson et al. (U.S. Patent No. 5,991,408).

Regarding claims 1-3 and 20, Pearson et al. teaches a method/apparatus for protecting data, comprising:

- Digitizing apparatus arranged to digitize a biometric feature to thereby create a **digital representation of said** biometric feature (fig. 1, ref. num 101 and 116 and fig. 2, ref. num 204);
- A secret data generator comprising (fig. 2):
 - Apparatus arranged to fault-tolerantly code and decode the secret data (fig. 2, ref. num 208 and col. 6, lines 31-44); and
 - Encrypting and decrypting apparatus arranged to encrypt and decrypt the fault-tolerantly coded secret data with the aid of the **digital representation of said** biometric feature (fig. 2, ref. num 210 and col. 6, lines 45-58);
- Wherein an encrypted code word is decrypted on the basis of the **digital representation of said** biometric feature, thereby obtaining a decrypted code word (fig. 5, ref. num 514 and 516),

- Whereby the secret data is recovered from the decrypted code word on the basis of a coding theory method within a freely selectable tolerance level (col. 9, lines 16-40),
- **Wherein said encrypted code word is formed by digitizing a biometric feature to create a digital representation of the biometric feature** (fig. 1, ref. num 101 and 116 and fig. 2, ref. num 204), **fault-tolerantly encoding the secret data to create a code word** (fig. 2, ref. num 208), **and encrypting the code word on the basis of the digital representation of the biometric feature** (fig. 2, ref. num 210).

Regarding claims 5 and 21, Pearson et al. teaches including the step of creating initial correction data to describe the space of allowed code words (col. 8, line 45 through col. 9, line 6).

Regarding claims 6 and 22, Pearson et al. teaches including the step of providing initialization correction data on the basis of the digitized biometric feature data (col. 8, line 45 through col. 9, line 6).

Regarding claim 7, Pearson et al. teaches including the steps of creating authentication correction data on the basis of the digitized biometric authentication feature data; recovering the digitized biometric feature data on the basis of the

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authentication and initial correction data; decrypting encrypted secret data on the basis of the recovered digitized biometric feature data (col. 8, line 45 through col. 9, line 6).

Regarding claim 10, Pearson et al. teaches including using user-specific initial correction data and/or user-specific fault-tolerant coding (col. 8, lines 45-53).

Regarding claims 11, 12, 17, and 25, Pearson et al. teaches wherein the handwritten signature is broken down into a public and a secret part and the secret part is a proper subset of the dynamic information of the signature, and the separation is effected with the aid of empirical inquiries (col. 6, lines 52-58).

Regarding claims 13, 14, 23, and 24, official notice is taken then a hash value is created from the digitized biometric feature data with the aid of a hash function. Hash values are commonly used in authentication of data because even a small change in the data creates an entirely different hash value.

Regarding claim 15, Pearson et al. teaches wherein the biometric feature is a behavioral biometric (col. 5, lines 45-48).

Regarding claims 16 and 26, Pearson et al. teaches wherein the biometric feature consists of a handwritten signature (col. 5, lines 45-48).

Regarding claim 18, Pearson et al. teaches wherein the providing and/or digitizing of the biometric feature is effected several times (col. 5, lines 48-52).

Regarding claim 19, Pearson et al. teaches wherein the secret data are generated with a public-key method (col. 6, lines 52-58).

Claim Rejections - 35 USC § 103

7. Claims 4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson et al. (USPN '408) in view of Camp, Jr. et al. (U.S. Patent No. 6,075,987).

Regarding claim 4, Pearson et al. teaches all the limitations of claims 1-3, above. However, Pearson et al. does not teach wherein the code word is generated by a generating matrix.

Camp, Jr. et al. teaches wherein the code word is generated by a generating matrix (col. 9, lines 9-23).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine using a matrix for generating a code word, as taught by Camp, Jr. et al., with the method of Pearson et al. It would have been obvious for such modifications because a generating matrix doesn't add any parity bits to the end of the plain text word to make them code words.

Regarding claims 8 and 9, Pearson et al. teaches all the limitations of claims 1 and 7, above. However, Pearson et al. does not teach wherein the initial correction data are created by calculation of the digitized biometric feature data modulo n , and the authentication correction data are created by calculation of the authentication feature data modulo n .

Camp, Jr. et al. teaches wherein the initial correction data are created by calculation of the digitized biometric feature data modulo n , and the authentication correction data are created by calculation of the authentication feature data modulo n (col. 3, lines 31-43).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine creating data by modulo n , as taught by Camp, Jr. et al., with the method of Pearson et al. It would have been obvious for such modifications because modulo arithmetic makes it significantly hard to recreate the data without prior knowledge of other information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON S. HOFFMAN whose telephone number is (571)272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser G. Moazzami can be reached on 571-272-4195. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brandon S Hoffman/
Primary Examiner, Art Unit 2136